UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Contrast Media

2425-2-I0303D035-I0303D084M

Aims

Learn the fundamental aspect of chemical classification, mechanism of action, general safety and approved clinical indications of MR contrast agents.

Contents

The course aims to provide the student with the main knowledge on the physical and biological principles and safety requirements for the use of MRI contrast agents.

Detailed program

Introduction to the chemical-physical, pharmacological and regulatory basis of contrast agents used in MRI including: chemical elements used to increase or reduce relaxation time and stability, chemical and chemical-physical characteristics, pharmacokinetic properties, approved clinical indications and appropriateness of use, adverse events, contraindications, precautions for use and possible interactions with concomitant pharmacological treatments, in vitro and in vivo stability, technical data sheets of MR contrast agents containing Gadolinium. Mentions of "endogenous contrast media" with particular reference to the blood signal generated by bleeding.

Prerequisites

Diagnostic Imaging Techniques I

Teaching form

Monza
The frontal lessons will be held in mixed mode in presence: 6 hours in frontal mode and 2 hours in interactive mode (answer to open questions or multiple choice quizzes on the program delivered by the students and discussion/in-depth analysis on the topics presented)

Bergamo
4 lessons of 2 hours carried out in interactive mode in attendance (Game Based Learning technique)

Textbook and teaching resource

Slides and teaching material provided by the teacher, contrast media technical sheets, self-evaluation tests

Semester

Second semester

Assessment method

Monza
Oral exam to evaluate preparation on the exam program, the ability to organize knowledge and communication skills in a disciplinary context.

Bergamo
Multiple choice questions and open questions to evaluate preparation on the exam programme, the ability to organize knowledge and communication skills in a disciplinary context. Any additional oral interview if requested by the teacher or student

Office hours

By appointment required by mail

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION